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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/701,457	08/22/98	YAHATA	S 960630

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EXAMINER	
WIMER, M	
ART UNIT	PAPER NUMBER
2514	

DATE MAILED: 02/03/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/701,457

Applicant(s)

YAHATA et al.

Examiner

M. Wimer

Group Art Unit

2514

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-35 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-35 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____.

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

Art Unit: 2514

DETAILED ACTION

1. The disclosure is objected to because of the following informalities:

On page 5, line 20, there should be a period between "4" and "The".

On page 7, line 16, "directions" should be --direction--.

On page 8, line 2, "X" should be --Z--.

On page 9, line 1, "thermoses" should be --thermoset--.

On page 9, line 10, the term "weight %" is not understood. Clarification is required.

On page 11, lines 8,9 and 20 make reference to "Table 1" which is not part of the specification. Page 12, line 15 makes reference to "Table 2", page 13, line 10 makes reference to "Table 3" and page 16, lines 13 and 14 make reference to "Table 4" which are also not disclosed.

Appropriate correction is required.

2. Claims 1-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 1, the language "to longer side" is unclear and lacks a clear antecedent. If there is defined a rectangle, then there are two long sides and two short sides. In Claim 2, the alternative language "cut or rounded" is not equivalent, and it is unclear what such terms mean relative to a distinct geometry of corners. In Claim 4, there is no clear antecedent basis for "the thin..." since a plurality is recited and it is unclear if some or all of the plates are of the thickness recited. In Claim 5, the number of plates is not a definitive recitation. Claims 6 and 27 are not at

Art Unit: 2514

all understood since there is no lower range of dimension given, and thus it cannot be determined how small the antenna may become or the minimum size thereof before it is inoperative (since all antennas require a minimum dimension). In Claims 6 and 7, the ratio of one does not appear to have been disclosed as all embodiments appear to be rectangles and no square geometry for the core appears to be illustrated and set out as operative. In Claim 8 there are two verbs "are", and thus it is uncertain what is meant here. In Claims 9 and 29, there is no antecedent for "the coil conductor". In Claims 11, 18, 31 and 35, it is unclear if all three uses recited are equivalent or one in the same. In Claims 14 and 34, "or coils" lacks an antecedent and it is unclear if this term is meant to be equivalent to the antenna(s). In Claim 14, "Plate" should be --plate--. In Claim 15, "such as a..." is not a definite and positive limitation. In Claim 16, "printing is carried out" does not set forth a clear structure related to the transponder. In Claim 17, there is no proper antecedent for "the sections". It should be clear that the sections are on the transponder and part of it. In Claims 20-23 and 26, there is no antecedent for "said flake" since Claim 19 recites a plurality and thus it is unclear if all flakes have the characteristic recited. In Claims 20 and 21, the designators in parentheses are indefinite because parentheses in claims are reserved for reference characters used in the drawings. Specific compositions must be clearly set out in the claims. Claim 20 does not appear to be a proper Markush claim. In Claim 24, "e.g." is indefinite. In Claims 25 and 26, the definition of "weight%" is not understood. In Claim 32, there is no antecedent for "the longer side". In Claim 32, line 2, after "of" insert --a--. In Claim 33, there is no proper antecedent for "said two or three antennas".

Art Unit: 2514

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1-6,8,19,20 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by D'Hont.

Regarding Claims 1,3-6,8,19,20 and 30, D'Hont shows, for example in Fig. 7, a transponder antenna with magnetic core composed of layered, rectangular "thin" plates 42A-D of amorphous magnetic material (made of magnetic particles of soft iron or flakes as claimed within a synthetic resin) which may be oxidized (as taught in col. 4, lines 30-35) so as to be insulated, all arranged as claimed. As to Claim 2, badges, cards or flexible sheets (col. 1, lines 15-17) are deemed to have corners that are cut or rounded.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2514

6. Claims 7,9-11,21-29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over D'Hont.

Regarding Claims 7,9-11 and 21-29, D'Hont teaches various dimensions and compositions for the elements and is evidence of obviousness that such dimensions and compositions are design expedients dependent upon a particular antenna design and efficiency in the system. The specific dimensions and compositions claimed are obvious to the skilled artisan and notice of such is hereby taken. Frequency of operation is obvious to a specific design of the skilled artisan and dependent upon frequency allocation of the particular transponder system.

7. Claims 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens et al in view of Takizawa et al and D'Hont.

Regarding Claims 12-18, Stevens et al show a transponder system with a spiral, air-cored loop 46 and ferrite loop antenna 48 disposed on a common substrate 34. Only one magnetic core antenna is shown where its axis is perpendicular to the air core loop antenna 46. Thus, Takizawa et al are cited as evidence of obviousness and as resolving the level of ordinary skill in the antenna art and shows a plurality of magnetic core antennas, where at least two are perpendicular to each other. It would have been obvious to the skilled artisan to pluralize the single magnetic core antenna of Stevens et al according to Takizawa et al in order to provide omnidirectional coverage. Further, it would have been obvious to employ the magnetic core antenna of D'Hont in the primary reference devices for the purpose of improving efficiency by reducing eddy currents.

Art Unit: 2514

8. Claims 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over D'Hont in view of Stevens et al and Takizawa et al.

It would have been obvious to the skilled artisan to employ the transponder arrangement of Stevens et al employing the D'Hont antenna along with an air core, spiral antenna and including a plurality of magnetic core antennas taught by Takizawa et al, effectively pluralizing the D'Hont antenna for system use.

9. The patents to Arai, Fukuda, Yoshizawa et al and Ganter et al are cited as of interest showing magnetic core antenna elements and their characteristic compositions.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Wimer whose telephone number is (703) 305-3555. The examiner can normally be reached on weekdays from 9am to 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald T. Hajec, can be reached on (703) 308-4075. The fax phone number for this Group is (703) 308-7723.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [don.hajec@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive


Art Unit: 2514

information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

MCW

January 29, 1998


MICHAEL C. WIMER
PRIMARY EXAMINER
ART UNIT 2514